

**REMARKS**

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

**Disposition of Claims**

Claims 1-41 are pending in this application. Claims 1, 8, 14, 16, 22, and 31 are independent. The remaining claims depend, directly or indirectly, from claims 1, 8, 14, 16, 22, and 31.

**Objection(s)**

Claims 19, 21, 27, and 28 are objected to due to informalities. Claims 19, 21, 27, and 28 have been amended according to the Examiner's suggestions. To the extent that this objection may still apply to the amended claims, the objection is respectfully traversed.

**Rejection(s) under 35 U.S.C § 102**

Claims 1-4, 6, 8-9, and 14-17 stand rejected under 35 U.S.C. § 102(b) as anticipated by Admitted Prior Art (APA) of the specification and figures. Claims 1, 8, and 14 have been amended in this reply. Support for these amendments may be found, for example, on page 12 of the specification. To the extent that this rejection may still apply to the amended claims, the rejection is respectfully traversed.

The present invention relates to message passing in a multiple computer processor system. Specifically, the present invention relates to allocating memory for message passing to facilitate message transfer in a single shared memory symmetric multiprocessor (“SMP”) or a cluster of SMPs. Claim 1, as amended, recites an *on-demand* memory allocation method to allocate space to store a message transmitted from one node to another node (see, e.g., page 11-12 of the specification). Further, when a process on a node wishes to send a message, space is allocated for that message on a per segment basis.

In contrast, APA (and specifically Figure 3 of APA) describes a method where space for messages is *pre-allocated* for every process on each node of the system (*i.e.*, static allocation of postboxes for each process). Further, the APA does not disclose or suggest allocating space on a per segment basis, as needed, when a process wishes to send a message to another node. Therefore, APA does not disclose or suggest the present invention as recited in amended claim 1.

In view of the above, APA fails to show or suggest each and every limitation of the present invention as recited in amended claim 1. Further, independent claims 8 and 14 have been amended to include similar allowable subject matter. Thus, independent claims 1, 8, and 14 are patentable over APA. Dependent claims 2-7, 9-13, and 15 are allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

With respect to claim 16, the Examiner states that the APA, namely page 7 paragraph [0020] of the present application, inherently discloses all the limitations of independent claim 16. The relied upon portion of the APA states “the receiving process

notifies the sending process that it can reuse the postbox for a future message.” Claim 16 has been amended to include the limitation “wherein the memory space is accessible to any of the plurality of processes.” Support for this amendment may be found, for example, in Figure 4 and on pages 11-12 of the present application. Specifically, claim 16 has been amended to recite that any process on any node within the system may use reclaimed memory space (*i.e.*, postboxes). In contrast, the APA discloses the reuse of a postbox by the same process that originally sent the message that was stored in the postbox (*i.e.*, the memory segment is only accessible by a single process).

In view of the above, APA does not disclose or suggest each and every element of amended independent claim 16. Therefore, claim 16 is patentable over APA. Further, dependent claims 17-21 are patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

### **Rejection(s) under 35 U.S.C § 103**

Claims 5, 7, 10-13, 18-21, and 31-41 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Admitted Prior Art (APA). Independent claims 1, 8, and 14 have been amended in this reply to clarify the present invention recited. To the extent that this rejection may still apply to the amended claims, the rejection is respectfully traversed.

Claims 5, 7, 10-13, and 18-21 are patentable for at least the reasons presented above. With respect to claim 31, the Examiner admits that APA does not disclose the claimed acknowledgement segment. However, the Applicant respectfully asserts that the acknowledgement segment is not analogous to a receiver list. However, if the Examiner wishes to maintain his assertion that a receiver list is analogous to the acknowledgement

segment and that creating a receiver list would have been obvious to one skilled in the art, the Examiner is requested to take official notice in accordance with 37 C.F.R §104(d)(2).

Further, claim 31 states that a data memory segment is created for the first process on the second node when the first process wishes to send a message to a process on the second node. This refers to the dynamically allocated memory that is described on pages 11-12 of the present application. As noted above, the APA does not disclose or suggest the dynamic allocation of memory.

In view of the above, APA fails to show or suggest the present invention as recited in independent claim 31. Thus, the claims are patentable over APA. Dependent claims 32-41 are allowable for at least the same reasons.

### Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 13223.010001).

Respectfully submitted,

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